

REMARKS

Claims 1-9 are pending in the present application. Claims 1-7 are rejected. Claims 1-3 are herein amended. New claim 9 is added herein.

Applicants' Response to Claim Rejections under 35 U.S.C. §103

Claims 1-7 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ferrari et al. (U.S. Patent No. 6,184,348) in view of Hähnle (U.S. Patent No. 6,828,354 corresponding to WO 02/26872 cited as the English equivalent).

It is the position of the Office Action that it would have been obvious to one skilled in the art at the time the invention was made to combine the teachings of the references to produce a wound-dressing matrix. It is the position of the Office Action that Ferrari discloses the use of the copolymers of Arg-Gly-Asp and Gly-Ala-Gly-Ala-Gly-Ser deposited onto substrates, films and membranes that could be used for wound dressing. Further, it is the position of the Office Action that Hähnle discloses the use of a polyalkylenepolyamine matrix containing primary and secondary amine groups having a molecular weight of not less than 300 which could be used for wound dressing applications.

Ferrari relates to a recombinantly produced proteinaceous polymer composition. As stated by the Office Action, Ferrari does not teach the use of a polyalkylenepolyamine and/or polyarylenepolyamine. Further, Ferrari describes "the subject material may be made into or coated on woven fabrics, films or membranes," but does not describe the kinds of films or membranes. Column 28, lines 41-43.

Meanwhile, Hähnle relates to hydrophilic open-celled resilient foams comprising a melamine-formaldehyde resin. Specifically, Hähnle uses hydrophilic melamine-formaldehyde resin foams. Hähnle only describes treating the melamine-formaldehyde resin with vinylamine polymers or polyethyleneimines in order to reduce formaldehyde emissions. See column 2, lines 52-55 and column 4, lines 25-30.

First, Applicants respectfully submit that the combination of Ferrari and Hähnle does not teach the wound dressing of present claim 1. As mentioned above, Ferrari does not describe the types of films or membranes used, and Hähnle only uses hydrophilic melamine-formaldehyde resin foams. It is noted that Hähnle only describes a polymer containing primary and/or secondary amino groups and having a molar mass of not less than 300. Therefore, the combination of references does not disclose the combination of the specific polypeptide (P), the specific polyalkylenepolyamine and/or polyarylenepolyamine (A) having a weight average molecular weight of 2,000 to 60,000, and the specific sheet (S) as required by claim 1.

Further, Applicants respectfully submit that even if the combination of reference did disclose the wound dressing as claimed, one having ordinary skill in the art would not have been motivated to combine the teachings of Ferrari and Hähnle. Even if the teachings of Ferrari and Hähnle were combined, the present invention yields unexpected results with respect to such a combination.

In support of this position, Applicants herewith submit a Declaration under 37 CFR 1.132, discussed below. The wound dressing of the present invention has an extremely high epidermal regeneration accelerating effect by the claimed constitution, namely by using the

specific polypeptide (P), the specific polyalkylenepolyamine and/or polyarylenepolyamine (A) and the specific sheet (S). The wound dressing of the present invention is suited for the therapy of skin wounds and can treat wound without burdens on patient.

The epidermal regeneration effects of wound dressings of the present invention as well as those resulting from the combination of Ferrari and Hähnle are shown in the attached Declaration under 37 CFR 1.132. Applicants draw the Examiner's attention to the Comparative Example 1 in the attached Declaration. This Comparative Example 1 utilizes the wound dressing (HB9) as prepared in Example 1 of the specification. See page 24, line 16 to page 25, line 33. However, instead of the sheet (B1) discussed at page 25, lines 1-12 of the specification, the Comparative Example 1 of the Declaration utilizes the sheet (B3) disclosed in the Comparative Example 1 of Hähnle at column 15, lines 16-32. In Hähnle, the hydrophilic melamine-formaldehyde foam prepared in Comparative Example 1 (column 15, lines 16-32) is used in Inventive Examples 1-6 (column 15, line 45 to column 16, line 35). Thus, the Comparative Example 1 of the Declaration is similar to a combination of Ferrari and Hähnle.

From the results described in the Declaration, the wound dressings of the present invention were hydrophobic, and the wound dressing of the Comparative Example 1 was hydrophilic, due to its use of melamine-formaldehyde foam. Based on this difference, the wound dressings of the present invention have excellent epidermal regeneration effects as compared to the poor epidermal regeneration effects of Comparative Example 1, as illustrated in Table 1 of the Declaration.

Furthermore, Applicants draw the Examiner's attention to Comparative Examples 1 and 2 of specification, at page 29, line 25 to page 30, line 24. Comparative Examples 1 and 2 are similar to the Example 1 of the specification. However, instead of a polyalkylenepolyamine having a molecular weight of 10,000, Comparative Example 1 uses a polyalkylenepolyamine having a molecular weight of 1,800 and Comparative Example 2 uses a polyalkylenepolyamine having a molecular weight of 75,000.

As illustrated in Table 1 on page 34 of the specification, these Comparative Examples only had fair epidermal regeneration. On the other hand, the Examples 1-7, which use the specific polypeptide (P), the specific polyalkylenepolyamine and/or polyarylenepolyamine (A) having a critical molecular weight of 2,000 to 60,000, and the specific sheet (S) show excellent epidermal regeneration.

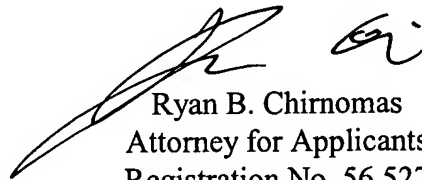
For at least the foregoing reasons, Applicants submit that the combination of Ferrari and Hähnle does not disclose the claimed invention. Further, it would not have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of the references. Thus, the claimed invention distinguishes over the cited art and defines patentable subject matter. Favorable reconsideration is earnestly solicited.

Should the Examiner deem that any further action by applicants would be desirable to place the application in condition for allowance, the Examiner is encouraged to telephone applicants' undersigned agent.

Amendment
Serial No. 10/797,606
Attorney Docket No. 042190

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,
WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP

A handwritten signature in black ink, appearing to read 'Ryan B. Chirnomas', is written over the printed name.

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Enclosures: Declaration under 37 CFR 1.132